DOCUMENT RESUME

ED 229 976 EC 152 540

AUTHOR Lindsey, Dianne; And Others
TITLE A Cooperative Adventure: The Integration of Physical Therapy Services into North Carolina's Schools.
PUB DATE Apr 83
NOTE 18p.; Paper presented at the Annual International Convention of The Council for Exceptional Children (61st, Detroit, MI, April 4-8, 1983).
PUB TYPE Speeches/Conference Papers (150) -- Guides - Non-Classroom Use (055)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Administrator Role; *Consultation Programs; *Disabilities; Elementary Secondary Education; *Interdisciplinary Approach; *Physical Therapy; Program Administration; *State Programs; Teamwork; Therapists
IDENTIFIERS North Carolina

ABSTRACT

In North Carolina, physical therapy services for handicapped students are integrated into school settings via a coordinated statewide effort. The model, headed by a physical therapy consultant, provides flexibility, supports an expanded role of therapists, emphasizes the team approach, and considers the physical therapist as a health professional. The approach uses evaluation conducted in natural settings, stresses functional application of therapy activities, and emphasizes ongoing motor training. The approach includes both direct services (screening, evaluation, individualized education program development, and direct therapy) and indirect services (management, monitoring, and consultation). The therapist can contribute to programmatic services in a variety of ways, including offering recommendations for student placement and special classroom equipment, recommending modifications and training regarding transportation, and consulting with physical educators. Administrative support for the multidisciplinary team approach is necessary to insure the program's success. (CL)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☐ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

ED229976

A COOPERATIVE ADVENTURE: THE INTEGRATION OF PHYSICAL THERAPY SERVICES INTO NORTH CAROLINA'S SCHOOLS

Presented at
Council for Exceptional Children
61st Annual International Convention
April 7, 1983

Session Leader:

Dianne Lindsey, LPT, MPH
State Physical Therapy Consultant
North Carolina Department of Public Instruction
Division for Exceptional Children
Raleigh, North Carolina 27611

EC152540

©

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
Dianne Lindsey
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

Authors:

Lindsey, D.; O'Neal, J.; Haas, K.; Tewey, S. A Cooperative Adventure: The Integration of Physical Therapy Services into North Carolina Schools, 1983.

PARTICIPANTS AND AUTHORS

Dianne Lindsey, LPT, MPH
State Physical Therapy Consultant
North Carolina Department of Public Instruction
and
Adjunct Assistant Professor
University of North Carolina at Chapel Hill
Medical Allied Health Professions
Chapel Hill, North Carolina 27514

Janet O'Neal, LPT
Physical Therapist
Wake County Public Schools
601 Devereux Street
Raleigh, North Carolina 27601

Karen Haas, LPT
Physical Therapist
Brunswick County Schools
Star Route, Highway 133
Southport, North Carolina 28461

Stephanna M. Tewey, M.Ed.
Director, Programs for Exceptional Children
Brunswick County Schools
Star Route, Highway 133
Southport, North Carolina 28461

A COOPERATIVE ADVENTURE
THE INTEGRATION OF PHYSICAL THERAPY SERVICES INTO NORTH CAROLINA'S SCHOOLS

The right of handicapped children to a free, appropriate public education including all necessary related support services enjoys both state and national recognition and support. North Carolina is strongly committed to the educational rights of its handicapped students and is making every effort to meet the educational and medical needs of special children.

The development and implementation of an effective state plan for the integration of physical therapy services into school settings is a demonstration of North Carolina's committment to provide related support services for handicapped children.

Physical therapy services in North Carolina schools have grown rapidly since 1977 because of:

-a coordinated state-wide effort to plan and implement services and
-the unique contributions of physical therapists to the education of special children.

COMPONENTS OF THE NORTH CAROLINA PHYSICAL THERAPY MODEL

There are several components of the model that have contributed to the successful integration of physical therapy services into school settings. Some of those components are:

Component One - The employment of a state physical therapy consultant by the state department of public instruction.

The major responsibilities of the consultant include establishing communication between educational and medical worlds and providing leadership at a state and local level in the development of appropriate school physical therapy services.

Component Two - The early recognition that flexibility within the plan would be the key to success.

Reasonable flexibility accommodates the varying needs, priorities, philosophies, and resources of the many geographical and regional locations represented across the state.

Component Three - The establishment of a physical therapy service model that supports:

-the expanded role of the therapist which emphasizes the consultative approach and incorporates programmatic planning as well as the provision of direct therapy services [1]

-the inclusion of the physical therapist as a central office team member with administrative and programmatic responsibilities

-the integration of therapy into the student's academic program throughout the day. Emphasis is placed on the team approach in order to provide management and maintenance programs as well as direct therapy.

-the recognition that the role of the therapist must include the responsibility and necessary time to establish non-threatening communications with parents and educational personnel. This is accomplished by arranging both informal and formal meetings before and after school and by providing inservices and continuing education programs within the school and community settings.

-the concept of providing educational and related support services in the least restrictive environment as much as possible

-the establishment of productive communications with health and medical agencies outside of the school environment. The therapist should be encouraged to take an active role in establishing and maintaining relationships with health agencies.

Component Four - The classification of the physical therapist as a health professional within the educational setting.

In addition to health professional classification, there must be competitive salaries, fringe benefits, appropriate working conditions, and professional support systems in order to recruit and maintain quality therapists.

These four unique components of North Carolina's model have contributed to the success and growth of physical therapy services in education. With the development of a flexible, state-wide plan, physical therapists began to implement the "expanded role" as the model for student service and programmatic service in North Carolina's schools.

STUDENT-RELATED SERVICES

The goal of physical therapy student-related services is to assist in providing an educational environment that will enable the handicapped student to:

-overcome educational deficits resulting directly or indirectly from a physical or motor disability
-benefit from educational opportunities in as near-normal a setting as possible
-develop to maximum motor and learning potential.

Physical therapy services in an educational setting must be goal-directed, related to a student's educational needs, and reflective of high professional standards. Services should be integrated into a student's school routine, rather than occurring only in a separate, isolated session. The basic assumptions underlying this integrated therapy model are that:

-motor assessments are conducted best in natural environments (e.g. homes, schools, playgrounds)
-students can learn many motor skills faster through functional and game activities

-motor skill training is most effective when it is ongoing and taught in the setting in which the skill will be used.[2]

Direct services include screening, evaluation, IEP development and direct therapy.

Screening is the identification of students with possible physical or motor problems. The physical therapist works primarily with school nurses and physical education teachers in screening. Purposes of screening include:

-early detection of scoliosis (curvature of the spine)
-placement in adaptive or remedial physical education programs
-referral for in-depth physical therapy evaluation
-medical referral, primarily for neurological or othopedic problems.

Evaluation is the determination of the nature, extent, and implications of a physical or motor handicap. Evaluations are performed only upon formal school-based committee referral, using standard referral process and forms. Physician referral is also legally required in North Carolina and most other states prior to any physical therapy evaluation or treatment. Evaluation involves the assessment of student status, function, and need for intervention when there appears to be a dysfunction in any of the following areas:

-gross motor development: balance and coordination for pre-walking and walking skills, running, jumping, ball play, etc. The therapist uses task analysis and observational skills to assess not only what the student can and can't do, but how and why. In this way, the specialized skills of the therapist supplement the teacher's ability to administer developmental motor scales.
-muscle function: tone, strength, flexibility
-skeletal status: spinal alignment, range of joint motion, bone deformities, leg lengths, and muscle bulk
-neurological status: sensory awareness and processing, neuro-developmental reflexes, screening for signs of minor neurological dysfunction
-posture and gait analysis
-functional standing and environmental mobility skills
-breathing patterns; cardiovascular fitness
-adaptive/therapeutic equipment condition and usage: wheelchairs, braces, walkers, and other positioning and mobility devices
-transportation safety, comfort, and ease
-architectural or attitudinal barriers in the home, school, or community

The physical therapist may supplement or assist other school personnel in evaluating:

-self-help skills: feeding, dressing, toileting, hygiene
-oral motor function
-perceptual and fine motor development
-sensory integration
-pre-vocational skills
-self-image; attitude toward disability

Individual Education Plan (IEP) development involves assistance by the physical therapist in determining appropriate educational placement and related services for individual students. The physical therapist then writes specific physical and motor goals, based on evaluation results. These IEP goals may be implemented through direct, individual or group therapy, indirect management programs or consultation.

Direct treatment is the use of physical therapy skills and techniques to meet goals outlined in the IEP. Physical therapy may be administered only by a licensed physical therapist or licensed physical therapist assistant. Need for direct treatment is determined by the physical therapist and physician, based on evaluation results. Generally, students with mild to moderate physical/motor disabilities are served through consultation, indirect management, adaptive physical education, or group therapy. Students with moderate to severe disabilities are often seen for individual therapy on a regular basis, supplemented by consultation, indirect management, and adaptive physical education. When available and appropriate, students are referred to community physical therapy services. Direct therapy may include, but is not limited to:

-gross motor skill development through functional and play activities. Training occurs in an integrated developmental sequence. A variety of techniques and activities are used to teach fundamental abilities to avoid simply teaching "splinter skills".
-exercise to maintain or increase muscle tone, strength, and flexibility and joint mobility; exercises to prevent deformity related to these factors
-postural exercises
-gait training
-facilitation of normal developmental reflexes, particularly, protective and equilibrium reactions
-sensory stimulation, particularly vestibular (movement), tactile (touch), and proprioceptive (joint position sense)
-training in functional mobility and ambulation skills, including stair-climbing and transfers
-breathing exercises
-physical conditioning exercises
-training student in care and use of adaptive or therapeutic equipment such as artificial limbs, braces, splints, wheelchairs, walkers, crutches, etc.
-monitoring skin condition and preventing ulcers

Indirect services include management, monitoring, and consultation.

Management programs are physical/motor intervention techniques developed, taught, and supervised by a physical therapist, but administered by another person. Generally, students with mild to moderate physical or motor handicaps are served through management programs. Examples include parent or teacher training in home/classroom motor activities, positioning, handling, use of adaptive or therapeutic equipment, and management of daily mobility skills such as walking and wheelchair transfers.

Monitoring involves periodic contact by the physical therapist with at-risk students who are presently functioning optimally at home and school. Some are students who currently experience no significant problems related to their physical/motor disability. Others have had previous therapist involvement that set the stage for successful family and school management of the student, and

therefore ongoing therapy services are no longer needed. In this case, the physical therapist may monitor the student's status to make sure everything is going well and that no physical therapy involvement is indicated. The goals of monitoring are the early detection or deterioration of motor abilities or physical status, and the identification of problems that might occur as the student develops. Monitoring is often done yearly, usually at the beginning of the school year, as the student changes teachers, programs, schools, etc. Many times, a short briefing of school personnel and re-assessment of the home and school setting and student's status is sufficient to ensure another successful school year. Students, families, and school personnel are reassured that the physical therapist is available upon request.

Consultation is specific assistance or instruction by a physical therapist to improve, enhance, or supplement a student's program and physical management in the educational or home environment. The physical therapist functions as part of the total team serving each student. As such, the expanded role of the therapist as consultant to and with other team members is perhaps the most vital and unique component of the North Carolina plan, making it truly a "cooperative adventure". Use of the therapist primarily as a consultant, rather than strictly as a direct service provider, allows:

- -better and wider utilization of the skills and knowledge of the physical therapist
- -provision of services to a larger number and variety of students and teachers
- -delivery of support and assistance to families, teachers, administrators, and other school personnel.

The physical therapist consults with regular and special education teachers, physical educators, bus drivers, guidance counselors, aides, volunteers, principals, parents, psychologists, nurses, physicians, social workers, occupational and speech therapists, transportation and maintenance personnel, and community health agencies. The therapist as consultant:

- -facilitates information sharing among home, school, and community medical personnel regarding student's physical status
- -interprets medical records to promote understanding of student's abilities and disabilities
- -offers guidelines to family and educational staff on setting realistic goals and expectations based on physical capabilities and limitations
- -instructs in proper physical management of the student, including lifting, carrying, handling, positioning and transfers to ensure safety of all concerned
- -incorporates motor activities and therapeutic principles into student's classroom program
- -obtains, modifies, constructs, and maintains individual therapeutic equipment for positioning and mobility (wheelchairs and other seating devices, braces, splints, easels, prone standers, crutches, walkers, artificial limbs); instructs in their safe application and use
- -discusses individual positioning and safety needs with bus drivers

-assists in class scheduling for students using wheelchairs or crutches/ walker to facilitate efficient mobility
-helps to adapt physical education activities and equipment
-contributes to decisions on alternative communication methods and devices
-promotes classroom organization for maximum accessibility by disabled student
-instructs in emergency and safety procedures pertaining to the disabled student
-communicates with psychologists and others about the implications of student's motor handicap for test administration and interpretation
-contributes to classroom strategies to foster emotional and physical independence of a disabled student.

It is this multi-faceted approach to the delivery of physical therapy services in educational settings that has contributed greatly to the successful and fulfilling integration of the handicapped student into optimal learning environments.

PROGRAMMATIC SERVICES

Service to individual students can be more efficient, productive, and coordinated with other service areas when coupled with effective planning on a programmatic level for the development of long range goals and procedures. Planning programs and services that will facilitate the effective integration of physically handicapped students into appropriate schools and classrooms is a primary focus of school physical therapy. The knowledge and experience of the physical therapist regarding students' physical/motor skills, potential and limitations offer a vital contribution for complete service planning. Physical therapists work with central office team members, principals, and community health professionals for the development of a well rounded plan that meets the unique needs of the physically impaired student.

Your school physical therapist can assist with programmatic services in the following ways:

-Offering recommendations for student placement and special classroom equipment or personnel needs

Educating the physically disabled student in the least restrictive environment requires careful planning and team interaction. As described previously, the physical therapist, as a member of the school based committee, contributes to individual student placement recommendations. It is equally important for the physical therapist to offer input at a central office level regarding placement policies. The physical therapist assists in establishing consistent policies to ensure that the least restrictive environment for meeting a student's educational and social needs is also able to meet his physical needs. Utilizing the physical therapist's knowledge of the time, space, personnel, and equipment required to address these physical needs, successful educational services can be planned. Students previously served in special schools or restrictive classroom placements may then move into more appropriate programs.

-Communicating and planning with engineering services and principals regarding accessibility modifications

Combining the engineer's knowledge of barrier modification building codes and the physical therapist's information of accessibility needs for individuals or groups of students leads to productive accessibility planning. Too often a school is modified to meet accessibility requirements and still presents barriers to students whose physical abilities and needs vary. The physical therapist and engineer planning together can choose ramp sites and other modifications that can be as personalized as possible without sacrificing the goal of general accessibility. By establishing priorities for barrier modifications, the physical therapist can assist the engineering department in meeting the most urgent accessibility needs first. In addition, the physical therapist can offer input to the central office for the location of new classrooms in accessible buildings.

-Providing recommendations to transportation services and principals regarding vehicle modifications and training programs for drivers

Safe transportation of physically impaired students involves appropriate vehicle adaptations, proper positioning of students in the vehicle, the shortest routing possible, established evacuation procedures, and driver training programs for understanding the relationship of a student's motor or physical disability to his safety on the bus. The physical therapist consults with the transportation director and bus maintenance personnel regarding the size and features of the chair the student will be using on the bus so that equipment lock-down features added to the vehicle are appropriate to secure the chair. Information is provided by the physical therapist regarding health factors that affect the length of time a student should be on a bus to assist the transportation director or principal with determining bus routes.

Driver training programs to include types of disabilities and implications for safety, loading/unloading procedures, and use of equipment are conducted by the physical therapist. Parents are also informed of ways that can promote safe transportation.

-Coordinating services with physicians, health agencies, and other physical therapists to promote mutual understanding of educational and health needs

The physical therapist's traditional link with physicians and health agencies often opens doors of communication with the medical world serving students. The school physical therapist aids in accomplishing the goal of educational/medical coordination by sharing information formally and informally with health agencies and educational administrators and serving as a liason in planning cooperative programs.

-Consulting with physical education administrators

Special students may require remedial, adaptive, or regular physical education programs. The physical therapist offers input to physical education administrators for planning programs, assessment tools, and curricula that will be consistent system-wide to meet students' needs. Inservice programs given by physical therapists insure participation and safety in physical education through understanding of physical/motor handicaps.

-Promoting acceptance of disabled students through teacher preparation and support and through awareness programs for students

Establishing an environment that fosters the growth of positive attitudes towards exceptional students is a goal shared by all team members. The physical therapist addresses this goal when planning and participating in peer acceptance or awareness training programs. The therapist shares facts about disabilities and offers examples, based on experience, about adaptations and coping with handicaps. The physical therapist's knowledge of and access to special equipment takes the guesswork out of planning simulation experiences for students and faculty. In addition, the physical therapist contributes to the sense of readiness teachers must have to feel positive about serving a disabled student by providing information and support to teachers receiving special students.

-Conducting or assisting with workshops and inservices regarding physical/motor disabilities and implications for education

-Maintaining appropriate records and statistics for federal/state reports and program growth

-Budgeting for special equipment or materials and training educational personnel in their safe use

The physical therapist is familiar with adaptive equipment, the relative strengths and weaknesses of products from different vendors, and pricing. This knowledge combined with the therapist's projections for student needs and program growth leads to effective budgeting for special equipment.

-Working with parent groups to establish a cooperative relationship between home and school

-Coordinating with pre-school handicapped programs to develop strategies for transition into public school programs

The vital years prior to a child's entrance into kindergarten or a special class can be used to prepare the child and his family for a successful first year in school if the physical therapist, other team members, and pre-school personnel unite their efforts. The school physical therapist outlines factors such as school layout, mobility requirements in a "typical day" and available personnel and equipment that will assist the pre-school physical therapist and other personnel in goal planning. Similarly, the school physical therapist is given information to begin preparation for the child at school.

-Building relationships with community agencies and civic groups for sharing resources and skills (eg. Parks and Recreation)

-Developing procedures for emergency evacuation (fire, tornado) with attention to the special needs of the physically handicapped

Offering inservice about equipment use, proper positioning and transfer techniques during emergencies, and recommendations for the number of people needed for safe evacuation of students in wheelchairs are ways the school physical therapist can assist with emergency procedure planning. The school physical therapist works with principals and engineers to ensure that designated evacuation routes are feasible and accessible for use by disabled students.

The school physical therapist's professional training, experience, and knowledge of the individual students give credibility to the role of the therapist in programmatic services. However, effective planning is seldom done in isolation. The physical therapist must have access to the long range goals and objectives of the Department for Exceptional Children and have information about current projects and plans. Similiarly, the physical therapist must keep other central office team members informed of concerns, needs and suggestions for program change. With a team model, the physical therapist as a central office representative and consultant can be a valuable resource for expanding, refining, and ensuring the success of educational programs for students with physical/motor handicaps.

THE LOCAL TEAM MODEL

It is generally agreed that developing programs for students with special needs in public schools involves merging professional expertise from several disciplines: regular education, special education, psychological, and family support services (Graph 1). A special education administration model, based on a multi-disciplinary team approach to service planning and delivery, has been implemented in North Carolina to ensure the inclusion of the physical therapist with other related services.

With the implementation of Public Law 94-142, many more physically disabled students have been admitted into the mainstream of education. In order to repond, special educators realize they need assistance from physical therapists to make required adaptations for these individuals. Exceptional children's administrators in North Carolina recognize the contributions of the physical therapist to total service planning. Consequently administrators are working to develop administrative strategies that will fully utilize the skills of the physical therapist as a central office team member.

Administratively, a niche has to be established for this type of new educational personnel. Regular education programs, representing "the mainstream" are organized in a community setting with a principal who is under a central office umbrella. Because this system commonly operates within a departmental scheme, physical therapists are usually assigned to special education. This type of management system uses authority in top-down communication patterns with educational administrators in key decision making positions. Support programs, considered as "tributaries" into "the mainstream" are found somewhere at the side or bottom of the chart. This way of conducting the business of education has worked well in the past.

The physical therapist may find that entry into this type of system is often difficult and confusing. Therapists and administrators may question where physical therapy belongs in the educational hierarchy. In the past, physical therapists working in schools were most often based in special centers for handicapped students. Now, as the potential and valuable affects of physical therapy is recognized, educators are seeing the benefits of employing physical therapists full-time at a central office level. Other methods of organizing support services are considered that will answer the question of where physical therapy belongs with more satisfaction for therapists and administrators and more service for students and educators.

The following model is proposed for special education departments as an alternative to the hierarchical system. For purposes of explanation it can be referred to as the "wheel system" (Graph 3)

The communication pattern introduced by the wheel system is based on an in-out flow of information and ideas. The central office multi-disciplinary team members carry information to and from the "hub group". Planning, decision making, and evaluation occur with input from every discipline. The physical therapist, as an equal member, has a position to exert influence and participate in the entire education process.

The mechanics of a multi-disciplinary group are that of any successful team. Productive interaction occurs when:

-shared leadership is facilitated by the director
-members share a common value of collaboration
-meeting agendas are developed by the group
-roles are clarified with specific descriptions and expectations
-operating procedures include ways of managing conflict
-decisions are made using a consensus testing method
-goals are defined by the group
-interdependence of members is developed through appreciation for personal and professional resources
-team effort is rewarded by frequent evaluation of progress and recognition of success in accomplishing goals
-mutual trust is nurtured through both a formal and informal flow of information between group members.

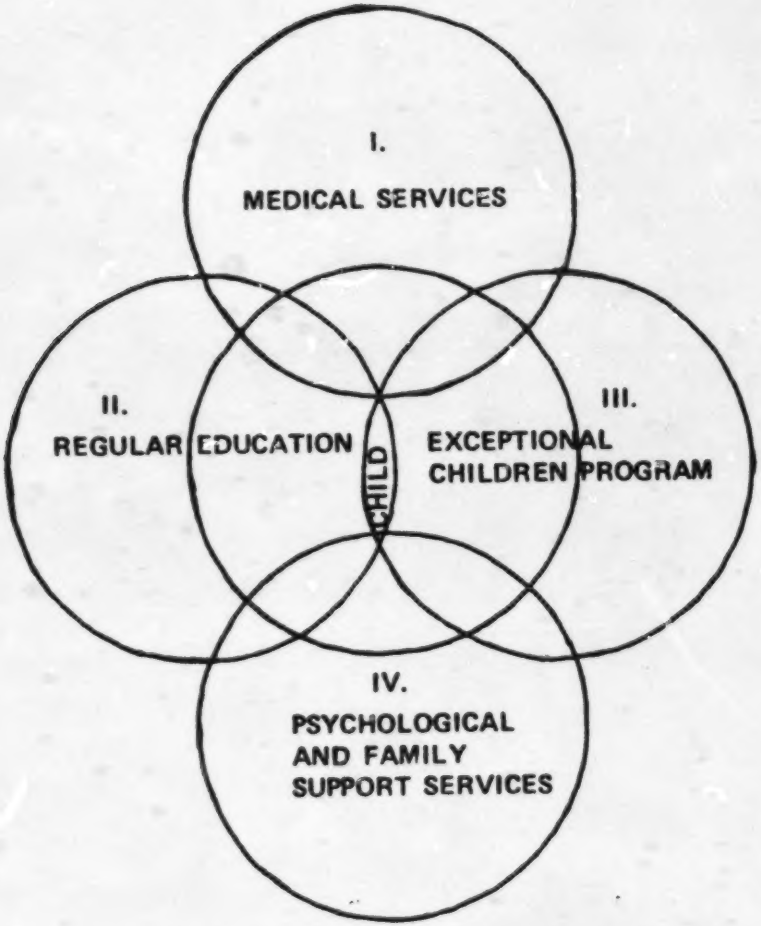
Benefits reaped by working together as a multi-disciplinary team are:

-an atmosphere of equality is created
-decisions are made with input from several perspectives
-support is available in difficult situations
-more resources are identified
-problem solving is done more effectively
-information is easily disseminated
-services are easily integrated, and less likely to be duplicated
-morale is usually higher and job satisfaction improves
-project tasks can be divided among the group to save time
-needs assessment is ongoing and dynamic
-strengths of professionals are recognized, emphasized and built upon.

The central office special education team model can work for any size system with modifications. Role representatives may have to be used in larger systems while smaller systems can supplement roles with community agency people. Central office team members are also available to join school teams which in turn become duplicates of the central office model. By doing this, specialist expertise is shared using a consistent team communication pattern.

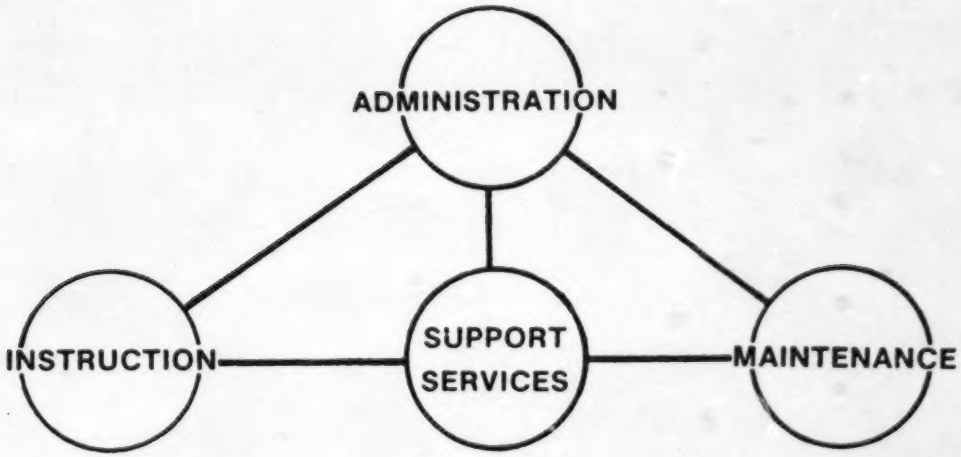
In conclusion, for the physical therapist to be truly integrated into a school program there must be support at the administrative level that recognizes

a multi-disciplinary team approach of the "wheel type" or at least a system with similar characteristics. As demonstrated on graph three, the multi-disciplinary team at the central office level provides a structure for partnership among support service professionals. This results in full participation of related service personnel in planning, problem-solving, and evaluation. The physical therapist as an administrative team member contributes a needed perspective in the overall delivery of services to special needs students.



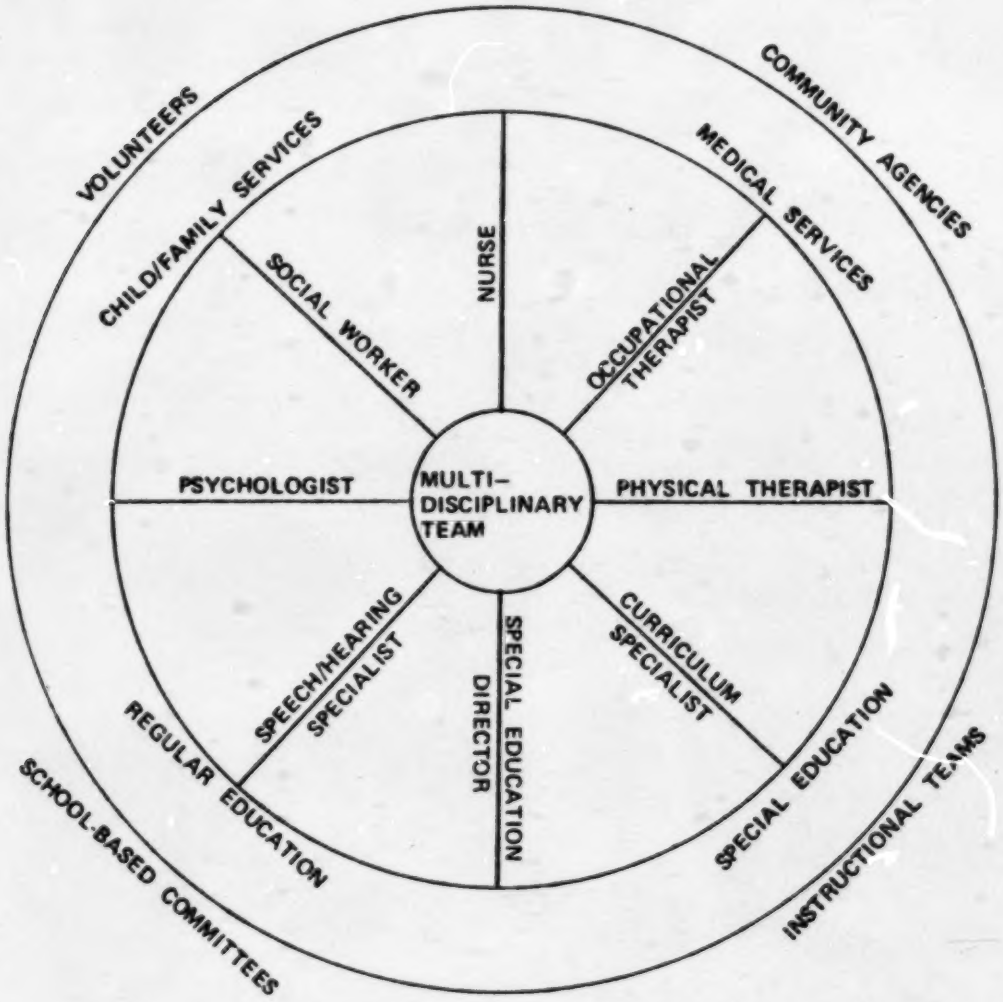
PROGRAM DEVELOPMENT

GRAPH 1



SCHOOL SYSTEM

GRAPH 2



LOCAL ADMINISTRATIVE TEAM MODEL

GRAPH 3

References

1. Guidelines: Physical Therapy Services in North Carolina Educational Environments. Raleigh: Division for Exceptional Children, North Carolina Department of Public Instruction, 1979, pp 3-4, 43-46.

2. Sontag, Ed, et. al. (Editors). Educational Programming for the Severely and Profoundly Handicapped. Reston, Virginia: The Council for Exceptional Children, 1977, pp. 264, 265.